

Douglas Ta

Gainesville, Florida • 407-280-5014 • douglas.ta@ufl.edu • [linkedin.com/in/douglas-ta](https://www.linkedin.com/in/douglas-ta) • <https://douglasta2024.github.io/#about>

AI Engineer specializing in Natural Language Processing and Computer Vision. Technical experience with leveraging LLMs and foundational models at Freedom Scientific and Gong Laboratories. Developed and optimized AI solutions using frameworks like TensorFlow and PyTorch.

WORK EXPERIENCE/RESEARCH

Gong Laboratories • UF

Aug 2024 - Present

Research Intern

- Researching multi-modal vision-language models, specifically focused on utilizing latent diffusion models, to be used for downstream tasks such as medical segmentation.
- Leveraging foundational models such as CLIP and Latent Diffusion to build generative AI architecture.

Freedom Scientific • Remote

Aug 2023 - Apr 2024

NLP Engineer (Part-time)

- Tasked to develop a CoPilot prototype for JAWS, a screen reader software designed to assist visually impaired users to use computers.
- Applied finetuning as well as implemented retrieval augmented generation techniques to leverage a LLM to help beginner users better understand how to use JAWS.

Fire Neural Network • UF

Jan 2023 - Aug 2023

Data Scientist

- Utilized satellite data as well as data collected from High-Risk Lightning Detector's to train and maintain supervised machine learning models that predicted wildfires caused by lightning strikes.
- Performed analysis on time series modeling of weather data to enhance predictive forecasting of machine learning models.

PERSONAL PROJECTS

Image Generation

Python, TensorFlow

Trained a Generative Adversarial Network and Variational Autoencoder on the MNIST dataset to produce new images of hand-written numbers utilizing the Adam optimization.

Housing Price Predictor

Python, Scikit-Learn

Trained a supervised machine learning model using various algorithms to accurately predict the price of houses using both provided and engineered features.

Building My Own Programming Language

Java

Developed a Java based programming language to better understand the principles behind languages.

EDUCATION

Master of Science in AI Systems

University of Florida
Gainesville, Florida
GPA: 3.8

Bachelor of Science in Computer Science in Business Administration Minor

University of Florida
Gainesville, Florida
GPA: 3.7

SKILLS

Languages: C++, HTML/CSS, Java, Python

Technical Experience: Azure, Data Analysis, Foundational Models, Generative Adversarial Networks, Image Generation, Langchain, LLM, Machine Learning, Machine Learning Modeling, Matplotlib, Natural Language Processing, Pandas, PyTorch, Retrieval Augmented Generation, Scikit Learn, Supervised Machine Learning, TensorFlow, Time Series Modeling, Variational Autoencoder

Soft Skills: Communication Skills, Leadership, Organizational Skills, Programming Language Development, Team Management